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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,074	10/02/2001	William D. Jensen	V44.12-0149	9047

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EXAMINER

CHAMBLISS, ALONZO

ART UNIT PAPER NUMBER

2814

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/970,074

Applicant(s)

JENSEN ET AL.

Examiner

Alonzo Chambliss

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2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 15-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/7/02.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of claims 1-14 and 22 in the reply filed on 9/22/04 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 15-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected claims, there being no allowable generic or linking claim.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 1/7/02 was filed before the mailing date of the non-final rejection on 12/10/04. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

4. The formal drawings filed on 10/2/01 have been approved by the examiner.

Specification

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: " TRIMMED INTEGRATED CIRCUITS WITH FUSE CIRCUITS ".

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 5-9, 11, 12-14, and 22 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Fenner et al. (U.S. 6,627,917).

With respect to Claims 1, 7, 12, and 22, Fenner teaches a plurality of integrated circuit dice 200 separated from one another by scribe lanes, the dice 200 having device trimming fuse circuits adjacent the scribe lanes. A plurality of pads 106a – 106e positioned in the scribe lane and connected to the device trimming fuse circuits by conductors 204a – 204e, so that following singularization of the dice from the wafer, the pads are disconnected from the device trimming fuse circuits. The conductors are severable during singularization of the integrated circuits since they extend across the

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scribe lane and the fuses are blown (see col. 1 lines 12-30, col. 2 lines 33-49, col. 4 lines 7-67, col. 6 lines 16-20, and col. 9 lines 1-7; Figs. 1-5).

With respect to Claim 2, Fenner teaches a second pad positioned in the scribe lane and a second conductor extending from the fuse circuit to the second pad (see Figs. 3-5).

With respect to Claims 3, 5, 8, Fenner teaches wherein the first and second pads are a fuse pad and supply pad connected to each fuse circuit, respectively and are aligned generally parallel to an edge of the integrated circuit die (see col. 6 lines 58-67 and col. 7 lines 1-9; Figs. 3-5).

With respect to Claim 6, Fenner teaches wherein the conductor is oriented generally perpendicular to the edge (see Fig. 4).

With respect to Claim 9, Fenner teaches wherein each fuse circuit includes a fuse connected to the fuse pad and the power supply pad by the conductors, which cross the die edges (see Figs. 3-5).

With respect to Claims 11 and 13, Fenner teaches wherein the fuse circuits are aligned in rows generally parallel to the scribe lanes (see Figs. 3-5).

With respect to Claim 14, Fenner teaches wherein a pair of adjacent fuses share one common pad since as stated in col. 4 lines 50-55, the conductors 204 provide redundant interconnection between each die 200 and the pads 106. This would provide redundancy between fuses and one common pad.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fenner et al. (U.S. 6,627,917) as applied to claims 1 and 7 above, and further in view of Lee (U.S. 4,935,645).

With respect to Claims 4 and 10, Fenner does not explicitly disclose a fuse circuit including a fuse and circuitry for sensing whether the fuse is blown. However, Lee discloses a fuse circuit including a fuse and circuitry for sensing whether the fuse is blown as evident by Lee (see col. 2 lines 55-65). Thus, Fenner and Lee have substantially the same environment of a fuse on an integrated circuit. Therefore, it would have been obvious to one skilled in the art to incorporate a fuse and circuitry for

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the fuse of Fenner, since the fuse and circuitry would detect when a fuse is blown to prevent voltage damage to integrated circuit as taught by Lee.


Conclusion

11. Any inquiry concerning the communication or earlier communications from the examiner should be directed to Alonzo Chambliss whose telephone number is (571) 272-1927.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-7956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PMR only. For more information about the PMR system see <http://pair-dkect.uspto.gov>. Should you have questions on access to the Private PMR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or EBC_Support@uspto.gov.

AC/December 10, 2004


Alonzo Chambliss
Primary Patent Examiner
Art Unit 2814